

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Application of)
HAWAII ELECTRIC LIGHT COMPANY, INC.)
For Approval to Construct an)
Overhead 69 kV Transmission Line)
Pursuant to HRS Section 269-27.6(a))
For Item H0001047, Waimea-Kawaihae)
Reconductor 7300 Line.)

DOCKET NO. 2007-0124

DECISION AND ORDER

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DEPT. OF COMMERCE AND
CONSUMER AFFAIRS
STATE OF HAWAII

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In the Matter of the Application of)
HAWAII ELECTRIC LIGHT COMPANY, INC.)
For Approval to Construct an Overhead 69 kV Transmission Line Pursuant to HRS Section 269-27.6(a) For Item H0001047, Waimea-Kawaihae Reconductor 7300 Line.

Docket No. 2007-0124

DECISION AND ORDER

By this Decision and Order, the commission approves HAWAII ELECTRIC LIGHT COMPANY, INC.'s ("HELCO") request to reconductor and reinforce a 69 kV transmission line above the surface of the ground for item H0001047, Waimea-Kawaihae Reconductor 7300 Line ("7300 Line"), pursuant to Hawaii Revised Statutes ("HRS") § 269-27.6(a) (the "Project").

I.

Background

HELCO is a Hawaii corporation and a public utility as defined by HRS § 269-1. HELCO was initially organized under the laws of the Republic of Hawaii on or about December 5, 1894. HELCO is engaged in the production, purchase, transmission, distribution, and sale of electricity on the island of Hawaii in the State of Hawaii ("State").

A.

Application

On May 11, 2007, HELCO filed an Application¹ seeking commission approval to reconductor and reinforce a 69 kV transmission line above the surface of the ground.² HELCO also requested that the commission conduct a public hearing, pursuant to HRS § 269-27.5, and grant it interim approval immediately thereafter to permit HELCO to commit funds and, if necessary, to start installation for the Project prior to receiving a commission determination.³

According to HELCO:

The "Waimea-Keamuku (7200) and Waimea-Ouli (7300) 69 kV Transmission Overload Study, Final Report" study, dated July 2006 ("7200/7300 Study"), identified the overload risks for the HELCO Waimea-Keamuku (7200) and Waimea-Ouli (7300) 69 kV transmission lines. The 7200/7300 Study analyzed a number of scenarios for short and long range generating resource additions that could impact the normal and emergency ratings for the 7200 and 7300 lines.

The key findings of the 7200/7300 Study were:

- 1) Both the 7200 and 7300 lines are presently at risk for overloads of about 20% of their emergency ratings.

¹Application; Verification; Exhibits 1 through 17 and Certificate of Service, filed on May 11, 2007; updated by Letter filed on December 14, 2007, from HELCO to the commission, collectively referred to herein as "Application."

²HELCO served copies of the Application on the DIVISION OF CONSUMER ADVOCACY, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS ("Consumer Advocate"), an ex officio party to all proceedings before the commission, pursuant to HRS § 269-51 and Hawaii Administrative Rules ("HAR") § 6-61-62. No persons moved to intervene or participate in this docket.

³Application, at 1.

- 2) Installation of ST-7 at Keahole operating in conjunction with the existing CT-4 and CT-5 in combined cycle mode provides base loaded generation at Keahole will reduce, but not eliminate, the overload risk for both the 7200 and 7300 lines.
- 3) The location of future generating units can greatly impact the power flow on the 7200 and 7300 lines. Installation of additional generation in the east (e.g., Hilo, Puna) and in the north (e.g., Waimea, Haina) will worsen the present overload risks, while installation of based loaded west side generation will help to alleviate the present overload risks.
- 4) Since both transmission lines are presently at risk for overload conditions, and because the addition of ST-7 at Keahole does not resolve these risks, there are both immediate and long term needs for eliminating the overload risks on the 7200 and 7300 lines.
- 5) Long range generation expansion in the east and/or north would worsen the overload risks for the 7200 and 7300 lines, and increase the required current carrying capacity of the 7200 and 7300 lines to about 810 amps.
- 6) Long range generation expansion (following the installation of ST-7 at Keahole) in the west can help to mitigate the overload risks on the 7200 and 7300 lines.

Application, at 3-4 (emphasis in original). HELCO states that the "recommended solution was to reconductor both the 7200 and 7300 lines with 556.5 MCM AAC [a type of conductor] or equivalent conductor immediately. (The normal line rating of the 556.5 MCM AAC conductor of 715 amps [abbreviation of the plural for ampere, a unit of electrical current] and the emergency line rating of 820 amps would satisfy the transmission planning criteria for

overload conditions.) Since normal power flow on the 7300 line is approaching the line's continuous rating, priority should be given to completing the 7300 line reconductoring first."⁴ Moreover, HELCO notes that reconductoring both the 7200 and 7300 lines will also allow for increased acceptance of power from Hawi Renewable Development ("HRD"), an as-available renewable energy resource and from Hamakua Energy Partners, L.P. ("HEP") a firm resource provider.⁵ HRD's wind farm generates up to 10.56 megawatts ("MW") of power and feeds into the system at the Waimea substation. HEP produces 60 MW of power flowing on the 7700 69 kV transmission line through Waimea town to the Waimea Substation, then splitting the power flow to the 7200 and 7300 transmission lines along the Kawaihae road and Mamalahoa Highway, respectively. Line congestion has been experienced in the area where the 7700 transmission line splits into the 7200 and 7300 lines. Under certain conditions, the lines could become overloaded. From July 28, 2006 to January 31, 2007, HRD was curtailed 10 times for system emergency reasons due to limitations on the 7300 Line. Therefore, reconductoring the 7300 Line will allow HELCO to accept more energy by way of fewer curtailments of HRD.⁶

HELCO estimates that the cost to place the existing 69 kV transmission line and 12 kV and secondary distribution

⁴Application, at 4-5 (footnotes and text therein omitted).

⁵Application, at 6.

⁶Application, at 6.

lines in underground facilities is \$40,400,000.⁷ The cost of the proposed project is currently estimated at \$2,346,700.⁸

B.

Procedural History

By Order No. 23544, filed on July 13, 2007 ("Order No. 23544"), the commission granted HELCO's request for interim approval to commit funds and, if necessary, to commence installation. In addition, HELCO was informed that "in the event the commission ultimately does not approve HELCO's Application on the merits, HELCO shall not seek to recover its share of the costs for the Project from its ratepayers."⁹

On July 30, 2007, the commission conducted a public hearing at the Waimea Civic Center in Waimea. Five persons attended and testified before the commission. After the hearing, two additional written public comments were received by the commission.¹⁰

On December 14, 2007, HELCO filed a letter to the commission informing the commission of updated plans for the Project.¹¹ On December 28, 2007, HELCO informed the commission

⁷Application, at Exhibit 12.

⁸Letter filed on December 14, 2007, from HELCO to the commission, at Exhibit 2.

⁹Order No. 23544, at 6, ¶ 3.

¹⁰See Letter filed on August 28, 2007, from the commission to the Parties, with two enclosures.

¹¹Letter filed on December 14, 2007, from HELCO to the commission.

that the reconductoring and reinforcement work for the 7300 Line was completed on December 18, 2007.¹²

On January 30, 2008, the Consumer Advocate submitted Information Requests ("CA-IRs") to HELCO. By letter filed on February 29, 2008, from HELCO to the Consumer Advocate, HELCO responded to the IRs ("HELCO's Response"). Significantly, with regard to the December 14, 2007 update, HELCO stated:

- a. An explanation of the pole replacements for this project is as follows:
 1. Two 40-foot poles (P-17X, P-44XX) were replaced with 65-foot poles. (No change in project scope.)
 2. One 55-foot pole (P-1) was replaced with a 65-foot pole. (New pole replacement; not part of original project scope.)
. . . .
 3. One 60-foot pole (P-52X) was replaced with a 65-foot pole. (New pole replacement; not part of original project scope.) In addition, the five 60-foot poles (P-46, P-52, P-55, P-57, P-60) originally planned to be replaced with 65-foot poles were instead retained, and ET-Trusses and bayonets were added.
 4. The five 65-foot poles (P-4, P-13, P-26, P-48X, P-58) originally planned to be replaced with 70-foot poles were instead retained, and ET-Trusses and bayonets added to P-13, P-26, P-48X and P-58, and only an ET-Truss added to P-4 (no bayonet).
 5. A 60-foot pole (P-45) originally planned to be replaced with another 60-foot pole was instead ET-Trussed.

¹²Letter filed on December 28, 2007, from HELCO to the commission.

6. A 70-foot pole (P-43) originally planned to be replaced with another 70-foot pole was instead ET-Trussed.

. . . .

- b. HELCO confirms that pole P-1 was replaced. The height of original pole P-1 was 55-feet and not 65-feet, as originally identified. As a result, pole P-1 was replaced with a 65-foot pole. . . .

HELCO's Response to CA-IR-1. HELCO also noted:

- a. At the public informational meetings with the association groups and area residents that were conducted in February and March 2007, HELCO provided a general description of the project scope. HELCO informed the residents that the ET truss was the most likely design to be used due to a lower construction cost and the least amount of public disruption. [HELCO] did not provide the residents with the level of detail described in the December 14, 2007 letter to the [c]ommission. Thus, [HELCO] did not inform the association groups and the residents of the detailed changes to the project scope. During the construction or after completion of the project in December 2007, HELCO did not receive any comments (or complaints) from the public regarding the scope of the project. HELCO received and addressed a few comments or concerns regarding construction related activities (i.e., dust control, safety for the crews, smoking, power outage).

HELCO's Response to CA-IR-2. In addition, HELCO noted:

- b. A meeting was held at HELCO's Engineering Conference Room on August 9, 2007 with representatives from HELCO, Hawaiian Telcom and the [State] Department of Transportation ("DOT"). The parties discussed consolidating the separate polelines onto a single poleline. However, it was agreed that the cost to consolidate the polelines would be too high and, therefore, would not be pursued. The parties also discussed relocating all the existing facilities underground. Again, the cost to convert from overhead to underground was too high, and would not be pursued.

HELCO's Response to CA-IR-3.

C.

Consumer Advocate's Statement of Position

On December 4, 2008, the Consumer Advocate submitted its Statement of Position ("Statement of Position") informing the commission that it does not object to the commission's approval of the Application. The Consumer Advocate notes:

HELCO included the three reconductoring projects for the 7200, 7300 and 6800 Lines in its Integrated Resource Plan (covering the period from 2007 to 2026) filed on May 31, 2007 (i.e. IRP-3) in Docket No. 04-0046. In Decision and Order No. 23977 filed on January 24, 2008 in Docket No. 04-0046, the [c]ommission agreed with the parties' stipulation and made a finding that allowed [HELCO] to pursue the installation of the 7300 Line reconductoring project, while placing conditions on the other two reconductoring projects.

Statement of Position, from 5-6 (footnotes and text therein omitted).

Significantly, the Consumer Advocate states:

. . . [T]hat the intent of this discussion is not to re-evaluate the need for the instant project since the reconductoring work was completed prior to recent State policy developments. The Consumer Advocate, however, believes that it is important to note that current State policy (i.e. Hawaii Clean Energy Initiative ("HCEI")) would have significantly impacted the review of the instant project.

. . . [T]he HCEI is anticipated to result in significant long-term impacts to decrease projected load by promoting energy efficiency (i.e., [Demand Side Management] programs) and the installation of renewable energy resources (e.g., [Combined Heat and Power], distributed generation ("DG"), photo-voltaic ("PV") systems. The decrease in projected load resulting from these activities may result in a situation where the present recognized overload conditions on the 7300 Line would be resolved, obviating the need for a reconducted 7300 Line.

. . . .

. . . As discussed in prior statements of position, the Consumer Advocate appreciates the immediate needs of a capital improvement project application. The extent to which that the impact [sic] of the HCEI is not included in the analysis to select and implement a proposed project makes it . . . difficult to assess the long-term impacts of the project and its associated costs on an electric utility's ratepayers.

The Consumer Advocate recognizes that it is about to begin discussions with [Hawaiian Electric Company, Inc.] to determine the type of analysis that is necessary to assess the impact of the HCEI on future capital projects. This effort is in accordance with the [c]ommission's directive as set forth in the Decision and Order filed in Docket No. 2008-0132 on October 24, 2008. As such, the Consumer Advocate anticipates that these discussions will assist in the review of future capital improvement project applications (e.g., the reconductoring projects for the 7200 Line (i.e., Docket No. 2008-0060) and the 6800 Line.

Statement of Position, at 6-8 (footnote and text therein omitted).

The Consumer Advocate considered whether the reconductored and reinforced 7300 Line in overhead facilities is reasonable pursuant to HRS § 269-27.6(a). The Consumer Advocate notes the following:

- The estimated cost to place the existing 69 kV transmission line and 12 kV and secondary distribution lines in underground facilities is estimated at \$40,400,000, approximately 17 times more than the cost of the proposed project, currently estimated at \$2,346,700.¹³

¹³Statement of Position, at 10.

- Although there are some visual differences between the reductored 7300 Line and the overhead facilities that it replaced, "[i]t does not appear, however, that these differences are significant as [HELCO] states that it has not received any comments or complaints since the completion of the project to indicate there is public concern."¹⁴
- Based on HELCO's representations that it met with Hawaiian Telcom and the DOT and "it does not appear that there would be significant cost savings associated with undergrounding the 7300 Line in conjunction with Hawaiian Telcom's facilities."¹⁵
- With regard to maintenance expenses or increasing the useful life of the facilities, HELCO "has not incurred expenses beyond the 'normal' wear-and-tear in maintaining the 7300 overhead line."¹⁶
- There is no governmental mandate requiring the underground placement of the instant 69 kV transmission lines.¹⁷
- HELCO states that the DOT indicated that funds were not available to place the 7300 Line in underground facilities.¹⁸

The Consumer Advocate states, "[b]ased on the above, [it] does not object to the placement of the reductored 7300 Line on overhead facilities."¹⁹

¹⁴Statement of Position, at 11 (internal footnote and text therein omitted).

¹⁵Statement of Position, at 12.

¹⁶Statement of Position, at 12.

¹⁷Statement of Position, at 13.

¹⁸Statement of Position, at 13-14.

¹⁹Statement of Position, at 14.

In addition, the Consumer Advocate recognizes that "the instant project is complete and [HELCO] asserts that it has not received any comments from the public regarding the scope of the completed project. As such, in the instant situation, the Consumer Advocate does not believe that a second public hearing is necessary pursuant to HRS § 269-27.5."²⁰

II.

Discussion

HRS § 269-27.6(a), titled "Construction of high-voltage electric transmission lines; overhead or underground construction" states:

Notwithstanding any law to the contrary, whenever a public utility applies to the public utilities commission for approval to place, construct, erect, or otherwise build a new [forty-six] kilovolt or greater high-voltage electric transmission system, either above or below the surface of the ground, the public utilities commission shall determine whether the electric transmission system shall be placed, constructed, erected, or built above or below the surface of the ground; provided that in its determination, the public utilities commission shall consider:

- (1) Whether a benefit exists that outweighs the costs of placing the electric transmission system underground;
- (2) Whether there is a governmental public policy requiring the electric transmission system to be placed, constructed, erected, or built underground, and the governmental agency establishing the policy commits funds for the additional costs of undergrounding;
- (3) Whether any governmental agency or other parties are willing to pay for the additional costs of undergrounding;

²⁰Statement of Position, at 14.

(4) The recommendation of the division of consumer advocacy of the department of commerce and consumer affairs, which shall be based on an evaluation of the factors set forth under this subsection; and

(5) Any other relevant factors.

HRS § 269-27.6(a).

First, under HRS § 269-27.6(a)(1), the commission finds that no benefit exists that outweighs the costs associated with placing the 7300 Line underground. The cost to underground the line, \$40,400,000, is approximately seventeen times the current estimated cost of \$2,346,700 for remaining overhead. This large cost differential cannot be justified as the purpose of the Project is merely reinforcing an existing line. Thus, there does not appear to be a benefit that outweighs the additional cost of placing the transmission line underground.

Second, under HRS § 269-27.6(a)(2), the commission is not aware of any governmental policy requiring the underground placement of the transmission line; nor, third, is the commission aware of any governmental agency or any other party willing to pay for the additional costs of placing the lines underground, pursuant to HRS § 269-27.6(a)(3). HELCO, Hawaiian Telcom and DOT met and could not agree to consolidate the polelines or jointly contribute funding to underground the transmission line.²¹

Fourth, under HRS § 269-27.6(a)(4), the commission recognizes that the Consumer Advocate, after reviewing the Project under HRS § 269-27.6, stated that it "does not object to

²¹HELCO's Response to IRs, at Response to CA-IR-3.

the placement of the reconductored 7300 Line on overhead facilities."²² Based on the foregoing, the commission concludes that HELCO's request to reductor and reinforce the Waimea-Kawaihae Reductor 7300 Line above the surface of the ground in connection with the Project, in the manner set forth in the Application, is reasonable and should be approved.

The commission also notes that the December 14, 2007 letter from HELCO updating the scope of the Project did not contain any major changes. The Project was completed by HELCO on December 28, 2007 and the commission has not received any public comments other than those indicated above. Therefore, it appears that a further public hearing on this matter is not necessary.

III.

Orders

THE COMMISSION ORDERS:

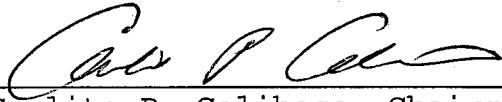
1. HELCO's request to reductor and reinforce the 7300 Line in connection with the Project, in the manner set forth in the Application, is approved, pursuant to HRS § 269-27.6(a).

2. This docket is closed, unless ordered otherwise by the commission.

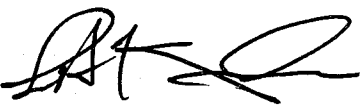
²²Statement of Position, at 14.

DONE at Honolulu, Hawaii FEB - 5 2009.

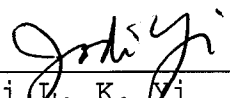
PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By 
Carlito P. Caliboso, Chairman

By 
John E. Cole, Commissioner

By 
Leslie H. Kondo, Commissioner

APPROVED AS TO FORM:


Jodi L. K. Yi
Commission Counsel

2007-0124.cp

CERTIFICATE OF SERVICE

The foregoing order was served on the date of filing by mail, postage prepaid, and properly addressed to the following parties:

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